

A new species in the genus *Sinopodisma* Chang, 1940 (Orthoptera: Catantopidae: Podisminae) from Hunan, China

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Abstract: A new species in the genus *Sinopodisma* Chang, 1940 from Hunan, China is described. The new species *Sinopodisma hunnanensis* sp. nov. is similar to *S. sunzishanensis* Zheng, Shi et Chen, 1994, but differs from the latter in length of prozona 2.3 times metazona, length of interspace of mesosternum 2.0 times narrowest, tegmina extending over the hind margin of first abdominal tergum, hind femur yellowish brown, ancorae of epiphallus higher than anterior projection. Type specimens are deposited in the Natural Museum of Hebei University, Baoding, Hebei, China.

Key words: Caelifera; Acridoidea; taxonomy

中国湖南蹦蝗属一新种（直翅目：斑腿蝗科：秃蝗亚科）

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摘要: 记述采自中国湖南的蹦蝗属 *Sinopodisma* Chang, 1940 一新种。新种湖南蹦蝗 *Sinopodisma hunnanensis* sp. nov. 同笋子山蹦蝗 *S. sunzishanensis* Zheng, Shi et Chen, 1994 近似, 区别特征为前胸背板沟前区为沟后区长度的 2.3 倍; 中胸腹板中隔长为最狭处的 2 倍; 前翅超出腹部第 1 节背板的后缘; 后足股节黄褐色; 阳茎基背片锚状突高于前突。模式标本保存于河北大学自然博物馆。

关键词: 蝗亚目; 蝗总科; 分类

Introduction

The genus *Sinopodisma* Chang, 1940 belongs to the subfamily Podisminae, family Catantopidae, and superfamily Acridoidea. It includes 37 species distributed in Eastern Asia. Among them, 35 species are distributed in China, including 8 species endemic of Taiwan and two species are distributed in the Ryukyu Islands of Japan only (Shiraki 1910; Tinkham 1936; Chang 1940; Bey-Bienko & Mishchenko 1951, 1952, 1954; Rehn & Randell 1963; Zheng 1981; Huang 1982; You 1980; Zheng, Lian & Xi 1985; Zheng & Liang 1986; Liang 1988, 1989; Peng & Fu 1992; Storozhenko 1993; Zheng, Shi & Chen 1994; Liang & Lin 1995; Otte

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1995; Yin, Shi & Yin 1996; Fu 1998; Jiang & Zheng 1998; Ito 1999; Zheng & Shi 2001; Wang, Li & Yin 2004a, b; Li *et al.* 2006; Liang *et al.* 2007; Zheng & Xie 2007; Eades *et al.* 2014; Yin *et al.* 2014).

During the identification of grasshopper specimens collected from Hunan, China, a new species in the genus *Sinopodisma* Chang, 1940 was discovered and is described below. Type specimens are deposited in the Natural Museum of Hebei University, Baoding, Hebei, China.

Taxonomy

Sinopodisma hunanensis sp. nov. (Figs. 1–8)

Male. Body median in size. Head large and short, shorter than pronotum. Face slightly oblique in profile. Distance between eyes equal to the width between antennae on frontal ridge. Antennae filiform, 22-segmented, length of joint 3.1 times width in middle part. Eyes globose, vertical diameter 1.7 times horizontal diameter and 1.8 times longer than subocular furrow. Pronotum cylindrical, anterior margin slightly concave in middle, median keel visible in metazona, distinctly cut by three transverse sulci, lateral keels absent, prozona 2.3 times metazona in length, hind margin excised deeply in middle. Prosternal process conical, apex rounded. Length of interspace of mesosternum 2.0 times the narrowest, lateral lobes of metasternum separated. Tegmina longer, extending over the hind margin of first abdominal tergite, length 3.2 times its width. Upper keel of hind femur smooth, length of hind femur 4.8 times its maximum width, the end of lower knee lobes rounded. Hind tibia with 11 spines on inner and on outer sides, external apical spine absent. Second joint of hind tarsus shorter than first joint. Tympanum distinct, big and rotund. Tergum of terminal abdomere with longitudinal groove in middle, furculae visible. Cercus compressed, almost reaching tip of epiproct, apex curved to inner side. Subgenital plate short-tapered, apex not pointed. Ancorae of epiphallus higher than anterior projection.

Female. Body more robust. Vertical diameter of eyes 1.6 times horizontal diameter and 1.5 times longer than subocular furrow. Prozona 2.2 times metazona in length. Tegmina shorter, reaching hind margin of the 1st abdominal tergite, length 4.2 times its width. Length of hind femur 4.2 times its maximum width. Cercus short-conical, not reaching end of epiproct. Ovipositor valve thick at base, hooked in end, with small teeth on outer margin.

Coloration. Body brown. Antennae yellowish-brown. Pronotum yellowish-brown, with a black longitudinal band along median keel. Postocular band black backward to pronotum and abdomen. Tegmina brown. Hind femur yellowish-brown, end black. Hind tibia green, base black. Abdomen yellowish-brown, with dark broad longitudinal stripe on both sides. Subgenital plate of male yellowish-brown.

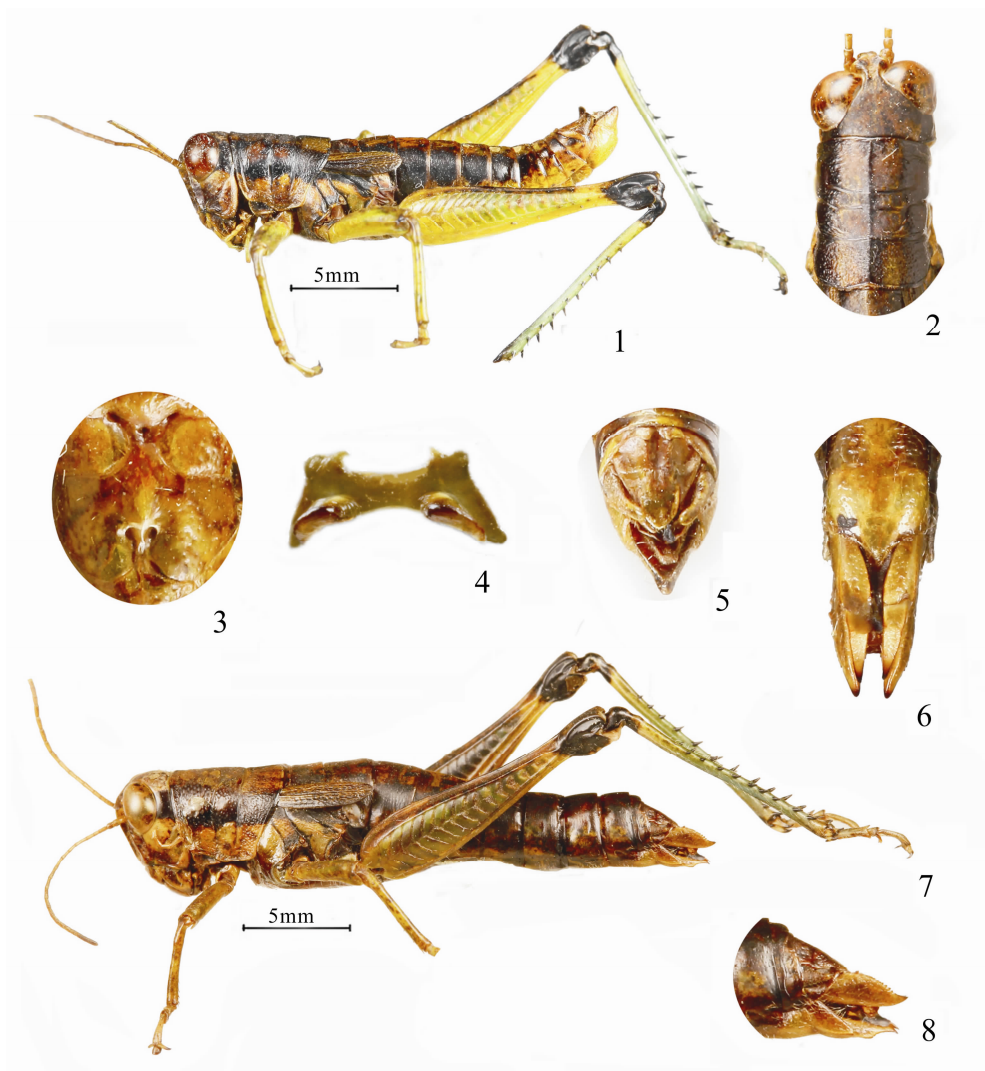
Measurements (mm). Length of body: ♂ 20.9–22.6, ♀ 27.7–28.8. Length of tegmina: ♂ 3.5–3.7, ♀ 5.2–5.4. Length of pronotum: ♂ 5.0–5.8, ♀ 6.1–6.2. Length of hind femur: ♂ 12.3–14.8, ♀ 14.8–15.6.

Holotype. ♂; **paratypes.** 5♂3♀, **China**, Hunan, Henshan, 27°25'N, 112°50'E, 02-X-2013, collected by Yongchao ZHI.

This new species *Sinopodisma hunanensis* sp. nov. is similar to *S. sunzishanensis* Zheng, Shi et Chen, 1994. The major differences are listed in Table 1.

Table 1. Comparison of *Sinopodisma hunanensis* sp. nov. and *S. sunzishanensis* Zheng, Shi et Chen, 1994

Characters	<i>Sinopodisma hunanensis</i> sp. nov.	<i>S. sunzishanensis</i> Zheng, Shi et Chen, 1994
Length of prozona	2.3 times metazona	1.6–1.8 times metazona
Interspace of mesosternum	Length 2.0 times narrowest	Length 1.3 times narrowest
Tegmina	Extending over the hind margin of first abdominal tergum	Not reaching the hind margin of first abdominal tergum
Hind femur	Yellowish brown	Yellowish green
Epiphallus	Ancorae higher than anterior projection	Ancorae lower than anterior projection



Figures 1–8. *Sinopodisma hunanensis* sp. nov. 1. Body, lateral view ♂; 2. Head and pronotum, dorsal view ♂; 3. Meso-metasternum ♂; 4. Epiphallus; 5. End of abdomen, dorsal view ♂; 6. End of abdomen, ventral view ♀; 7. Body, lateral view ♀; 8. End of abdomen, lateral view ♀.

Etymology. The specific epithet is named for Hunan, the type locality.

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